

## ABSTRACT

When a digital broadcast is decoded and then re-encoded and digitally recorded, detailed program information contained in the original digital broadcast and information such as age-based viewer control information or parental control information may be lost. This problem is solved by providing a digital tuner to demodulate the digital broadcast signal and output the MPEG-TS, a demultiplexer to demultiplex the MPEG-TS into the component packet streams, an AV decoder to decode the demultiplexed AV data packets, and an AV encoder to re-encode the demultiplexed AV data packets into AV data packets for recording. A control microprocessor reads, reconstructs, and sends the PSI or SI packets demultiplexed by the demultiplexer to save the viewer control information to the system multiplexer. The system multiplexer multiplexes the PSI or SI packets with the re-encoded AV data packets, and the multiplexed stream is then written to the recording medium.